

CARSON

Carson Manufacturing Co., Inc.

5451 North Rural Street

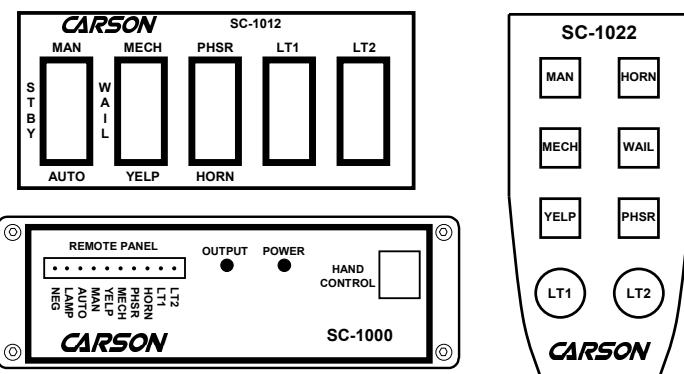
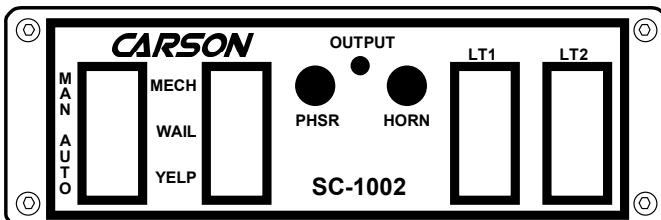
Indianapolis, IN 46220

Phone: (888) 577-6877 Fax: (317) 254-2667

www.carsonsirens.com

SC-1002 / 1012 / 1022-10 Ver. B SIREN AMPLIFIER W/ LIGHT CONTROL

Ver. B has different DIP Switch Options



INSTALLATION AND OPERATING INSTRUCTIONS

Carson is a trademark of Carson Manufacturing Company, Inc.

WARNING Sound Hazard - Sound level from siren speaker (>120dBA @ 10 feet) may cause hearing damage.
⚠ Do not operate siren without adequate hearing protection for you and anyone in immediate vicinity.
(Ref. OSHA 1910.95 for occupational noise exposure guidelines)

TABLE OF CONTENTS

GENERAL DESCRIPTION	3
SPECIFICATIONS	3
INSTALLATION	4
SAFETY PRECAUTIONS	4
UNPACKING	4
OPTION SWITCHES	5
MOUNTING	6
ELECTRICAL CONNECTIONS	7
OPERATION (SC-1002 / 1012 Model)	11
POWER ON/OFF	11
SIREN CONTROLS	11
Man - Standby - Auto Selector Switch	11
Mech - Wail - Yelp Selector Switch	11
Phaser Button (SC-1002) or Rocker (SC-1012)	11
Horn Button (SC-1002) or Rocker (SC-1012)	11
Auxiliary Input Functions	11
Horn Ring Cycler 2 (HRC2)	11
LIGHT CONTROLS	12
LT1 and LT2 Lighted Rocker Switches	12
OPERATION (SC-1022 Model)	13
POWER ON/OFF	13
SIREN CONTROLS	13
Mech, Wail, Yelp, and Phaser Pushbutton Switches	13
Manual Pushbutton Switch	13
Horn Pushbutton Switch	13
Auxiliary Input Functions	13
Horn Ring Cycler 2 (HRC2) (See page 11)	13
LIGHT CONTROLS	13
LT1 and LT2 Pushbutton Switches	13
SERVICE	14
PROBLEMS	14
PARTS and ACCESSORIES	15
RETURNS	16
WARRANTY	16

NOTICE

Due to continuous product improvements, we must reserve the right to change any specifications and information, contained in this manual at any time without notice.

Carson Manufacturing Co., Inc. makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Carson Manufacturing Co., Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual.

See www.carsonsirens.com for latest information.

GENERAL DESCRIPTION

The SC-1000 Series Siren Amplifier with Light Control is designed for single 100W speaker use. The SC-1002 and SC-1012 are a console unit and remote unit respectively. The SC-1022 is a remote hand held unit with pushbutton controls.

SC-1002 / 1012 - The primary operating modes are Mechanical, Wail, Yelp, and Standby selected by 3-position rocker switches. Momentary Horn Override, Momentary Phaser Override or push-on/push-off Phaser operation while in the Mechanical, Wail, and Yelp modes. Manual siren control of Mechanical, Wail, and Yelp. Lights are controlled with two rocker switches. The SC-1012 may be controlled with supplied switch panel or user supplied switches.

SC-1022 - The primary operating modes are Mechanical, Wail, Yelp, Phaser, and Standby selected by four pushbutton switches. Momentary Horn Override pushbutton and Manual siren pushbutton for control of Mechanical, Wail, Yelp, and Phaser. Lights are controlled with two pushbuttons as well.

On all units, an internal DIP switch provides options to change tones, disable tones, HRC2 operation, and Auxiliary input polarity. The units utilize short circuit, high voltage, and reverse polarity protection systems for maximum service life. An output light indicates siren signal output for diagnostics and troubleshooting.

SPECIFICATIONS

Siren Section						
Input Voltage	10 - 16 VDC (negative ground)					
Input Current	8 AMPS (@14 VDC - single 100W speaker)					
Standby Current	< 100 ma (@ 14 VDC w/ enable lead energized)					
Output Power	105 WATTS RMS MAX. (15 VDC - single 100W speaker)					
Siren Frequency	700Hz - 1500Hz (Mechanical 700Hz - 1600Hz; Two-Tone and Horn = 435 & 585Hz)					
Tones / Cycle Rates	Horn	Mechanical	Wail	Yelp	Phaser	Two-Tone
Cycle Rates	109 CPS	5 CPM	13 CPM	190 CPM	15 CPS	60 CPM
High Voltage Protection	16 - 18 VDC will cause siren output to cease, resumes at normal voltage					
Short Circuit Current	50 AMPS (supply circuit must be capable of supplying this for 1 second)					
Operating Temp.	-15° F to +140° F					
Controls (SC-1002 / 1012)	Two 3-position rocker switches (Mechanical, Wail, Yelp, Manual, and Standby). SC-1002 - Pushbutton switches (Horn and Phaser momentary or toggle). SC-1012 - Momentary rocker switch (Horn and Phaser momentary or toggle). Auxiliary input programmable for positive or negative activation. Internal 8-position DIP switch option selector.					
Controls (SC-1022)	Six Pushbutton switches for Mechanical, Wail, Yelp, Phaser, Manual, and Horn. Auxiliary input programmable for positive or negative activation. Internal 8-position DIP switch option selector.					
Connections	Screw down terminals for Positive and Negative Supply; Removable 6-Pin Terminal Block (2) Speaker, Auxiliary and Enable inputs, (2) light control outputs. SC-1012 has removable 10-Pin Terminal Block Plug for remote panel. SC-1022 hand control has built-in cable for connection to unit.					
Light Control Section						
Controls	SC-1002 / 1012 has two lighted rocker switches. SC-1022 has two pushbuttons.					
Current	20 AMPS per switch, 20 AMPS total					
Connections	Two light control outputs (see 6-Pin Terminal Block under Siren Connections)					
General						
Size	SC-10XX Amplifier 6" Wide, 6" Deep, 2" High SC-1012 Control Head 4-1/2" Wide, 1-3/4" Deep, 2" High SC-1022 Control Head 1-7/8" Wide, 1" Deep, 4" High					
Weight	SC-1002 - 3 LBS; SC-1012 / 1022 - 3-1/2 LBS.					

INSTALLATION

Proper installation of the unit is essential for years of safe, reliable operation. Please read all instruction before installing the unit. Failure to follow these instructions can cause serious damage to the unit or vehicle and may void warranties.

SAFETY PRECAUTIONS

For the safety of the installer, vehicle operator, passengers and the community please observe the following safety precautions. Failure to follow all safety precautions and instructions may result in property damage, injury or death.

Qualifications - The installer must have a firm knowledge of basic electricity, vehicle electrical systems and emergency equipment.

WARNING Sound Hazard - Sound level from siren speaker (>120dBA @ 10 feet) may cause hearing damage.
 Do not operate siren without adequate hearing protection for you and anyone in immediate vicinity.
 (Ref. OSHA 1910.95 for occupational noise exposure guidelines)

Hand Control Location - Locate the hand control for easy access by the vehicle operator. DO NOT locate in air bag deployment area

Mounting - Mount the unit for easy access by the vehicle operator. DO NOT mount in air bag deployment area. Assure clearances before drilling in vehicle.

Wiring - Use wiring capable of handling the current required. Make sure all connections are tight. Route wiring to prevent wear, overheating and interference with air bag deployment. Install and check all wiring before connection to vehicle battery.

Testing - Test all siren functions after installation to assure proper operation. Test vehicle operation to assure no damage to vehicle.

Keep These Instructions - Keep these instructions in the vehicle or other safe place for future reference. Advise the vehicle operator of the location.

UNPACKING

Inspect contents for shipping damage. If found alert carrier immediately.

Contact supplier immediately if any items are missing.

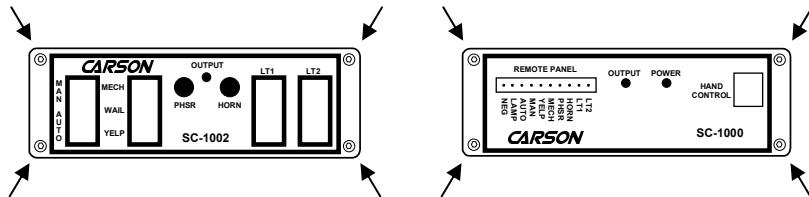
Contents of box should include the following items:

Qty	Item	SC-1002	SC-1012	SC-1022
1	Bracket, 'U' Dash Mount (CP3571)	X	X	X
1	Mounting Bracket Hardware (ED1608 Hardware Kit) (Kit contains 2 Bolts, 2 Nuts, and 4 Lockwashers)	X	X	X
1	Connector, 6-P Terminal Block Plug (CP4956-06)	X	X	X
1	Console Unit (SC-1002-10 14)	X		
1	Remote Amplifier (SC-1000-10 14)		X	X
1	Remote Panel Assembly (SC-1012-10CH)		X	
1	Connector, 10-P Terminal Block Plug (CP4688-10)		X	
15	Terminal, 3/16" Insulated Female Q.C. (CP4062-K2523)		X	
1	Hand Control Assembly (SC-1022-10CH)			X
1	Velcro Strip Fastener (VELCRO)			X
1	Instruction Manual (CP5028 This Manual)	X	X	X

OPTION SWITCHES

An internal 8-position DIP switch on the circuit board may be changed to select various options.

Accessing Option Switches - the DIP switch is located just behind the front panel of the amplifier. Use a 7/64" allen wrench to remove the 4 corner screws then remove front panel.



Adjusting Option Switches - it is easiest to view the DIP switch with the unit turned upside down. **With the unit upside down**, the DIP Switch is located on the internal PCB assembly board toward the left side of the unit. Switch 1 is toward the front of the unit. Switch 'ON' position is toward the left side of the unit.

The default setting is shown here. Switch 1 is on.



Note: Ver. B available options have changed.

SW-1 (AUX_P) Auxiliary Input Polarity - The auxiliary input is normally activated with positive. Turn switch off for negative activation.

SW-2 AUX_F1	SW-3 AUX_F2	Auxiliary Input Function with Unit set to Standby
OFF	OFF	(Default) Produces Horn tone while activated.
ON	OFF	Manual control of Mechanical tone.
OFF	ON	Manual control of Wail tone.
ON	ON	Activates Horn Ring Cycler 2 (HRC2) function.

SW-4 (T-T) Two-Tone - Turn this switch on to replace Phaser with Two-Tone.

SW-5 (H_I) Horn Inhibit - Turn this switch on to disable Horn tone. Horn replaced with Yelp.

SW-4 and 5 Tone Disable - All siren tones may be disabled except Manual, Wail and Yelp by turning on both switches. Mechanical will be replaced with Wail. Phaser and Horn will be replaced with Yelp.

SW-6 (SM) Short Manual - The Manual siren tone will normally fall and die out when released. Turn this switch on to have Manual stop immediately.

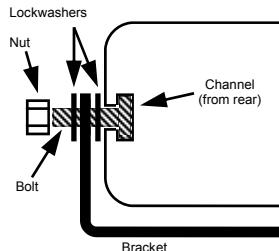
SW-7 (M-W) Manual Wail - **For SC-1022 only** Turn this switch on for Manual Wail instead of Manual Mechanical when pressing the MAN pushbutton.

SW-8 (FALL) Mechanical Fall - Turn this switch on for a quicker mechanical tone fall time.

HORN RING CYCLER 2 (HRC2) - Turn on DIP SW-2 and SW-3 to enable this feature. Also connect the auxiliary input to the horn ring or other switch. While the siren is in standby, tap the horn ring to bring the unit out of standby into Mechanical tone. Repeatedly tapping the horn ring will cycle through Mechanical, Wail, Yelp, and Phaser tones. Tapping the horn ring twice quickly will stop the siren tones and return the unit to standby. Pressing and holding the horn ring will produce Horn tone until released. Then the siren will return to its previous siren tone or standby.

MOUNTING (Main unit)

The mounting bracket supplied can be installed above or below the unit. Mounting bolts slide into channels on each side of the case. Lockwashers should be used between the case and bracket as well as between the bracket and nut. Choose a mounting location convenient to the operator and away from any air bag deployment areas. Inspect behind mounting area for clearance. Assure adequate ventilation to prevent overheating. Consider wire routing and access to connections. Install mounting bracket to vehicle using 1/4" hardware (not supplied).



SC-1012 Remote Panel: The remote panel of the SC-1012 is typically mounted underneath the vehicle dashboard using mounting hardware (not supplied). Mount the panel in a location away from the driver's or passenger's legs.

SC-1022 Hand Control: Choose a mounting location convenient to the operator and away from any air bag deployment areas. Consider cable routing to amplifier. Mount the hand control with supplied Hook and Loop tape (VELCRO). If the tape method is not preferred, the hand control may be mounted several ways. A Holster (CP5003) to hold the Hand Control or a Hanger and Holder to hold the Hand Control like a microphone (ED1865) are available accessories.

See PARTS and ACCESSORIES Section.

ELECTRICAL CONNECTIONS

Electrical connections to the unit are made using terminal block plugs and screw terminals located on the amplifier. Labels on the unit identify each terminal function. Install the plug on the unit before wiring. If the unit needs service the plug can be easily removed without unwiring. The power supply of the unit must be capable of delivering peak currents up to 50 amps for adequate short circuit protection and reliable operation. The preferred source is directly at the vehicle battery. The amplifier is fused.

Attach leads by stripping 3/8", inserting into plug and clamp by tightening screw. Make sure the screw is tight and the wire can't be pulled out.

Failure to adequately tighten the screw can result in improper operation or burning the connector and wire.

Wire Size and Termination - The diagram shows the minimum wire size used for each connection, along with recommended lead color. If the wire is longer than 10 ft. use the next larger wire size. Use only high quality crimp connectors for installation on the vehicle.

Enable Input Connection (ORG lead on wiring diagram next page) - **This is NOT the same as the main power connection.** The enable input is like a power switch for the unit. When there is positive power at this connection, the unit is powered up and ready to function. When power is removed, the unit is not powered up and will not drain current from the battery. Connect to a positive circuit controlled by the vehicle ignition switch, usually a terminal at the vehicle fuse panel. The required current is low (15mA typ.).

For SC-1022:

The Enable Input must be connected.

For SC-1002 and SC-1012:

The Enable Input is optional.

The unit will instantly turn on when a switch on the face of the unit or the control panel is activated. This includes LT1 and LT2 switches.

When all switches are deactivated, the unit will turn off.

Without the enable input, the Manual siren tone will stop immediately.

LT1 or LT2 switch may be used as power switch for the unit instead of Enable Input.

Auxiliary Input Connection (Optional) - A momentary input typically connected to the horn ring of the vehicle or other switch. See OPERATION section for auxiliary input functions.

NOTE: Permanent disconnection of the vehicle horn is NOT recommended.

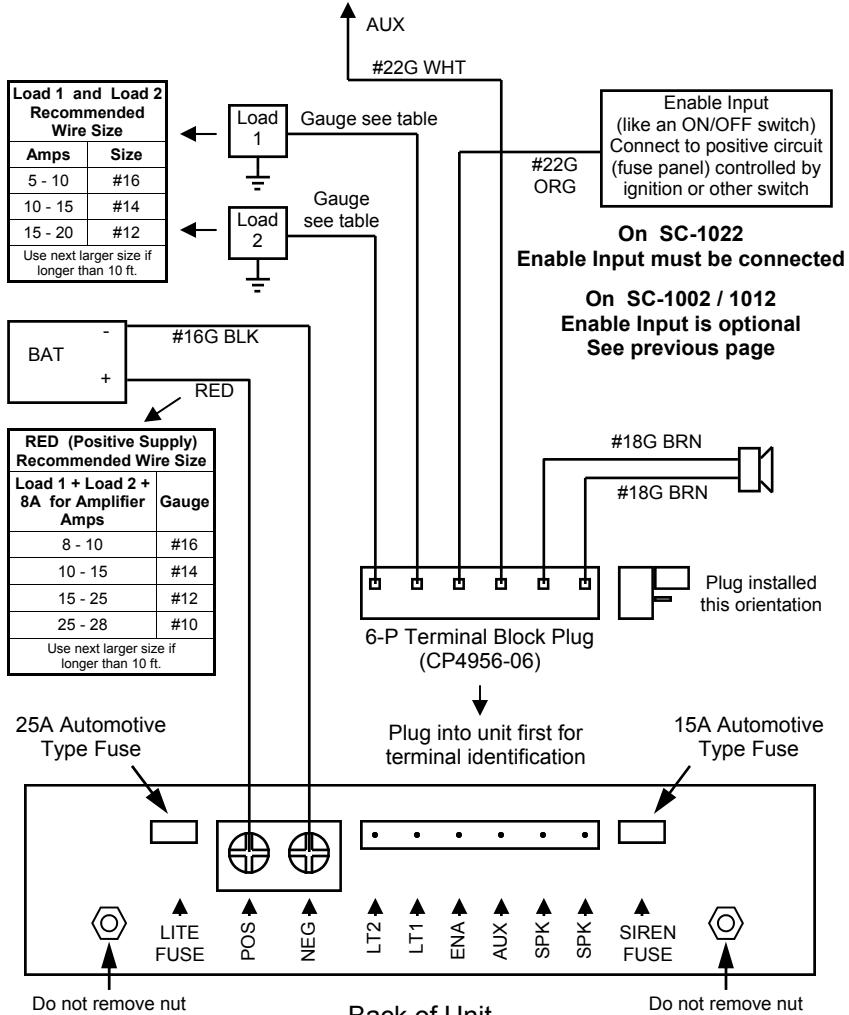
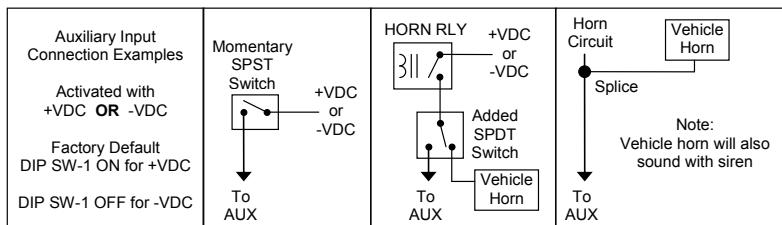
The auxiliary input may be activated with positive or negative voltage. See **Auxiliary Polarity** under **OPTION SWITCHES** section for proper activation polarity. Input current is 1 to 20 mA.

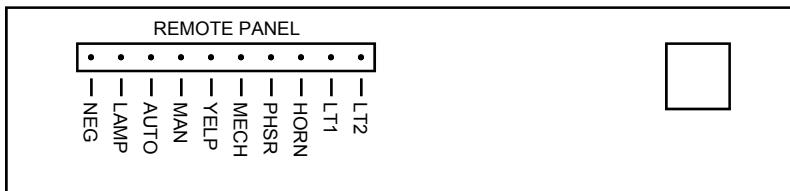
Aux Input for SC-1002 and SC-1012:

The unit must be turned on for the Auxiliary Input to function. This is accomplished with either the siren controls or Enable Input.

Unit turned on with switch on face of unit or control panel. This includes LT1 or LT2.	Unit turned on with enable input	Auxiliary Input will Function
NO	NO	NO
YES	NO	YES
NO	YES	YES
YES	YES	YES

ELECTRICAL CONNECTIONS CONTINUED (ALL MODELS)



ELECTRICAL CONNECTIONS CONTINUED (SC-1012 only)**Front of Unit**

Plug into unit first for terminal identification

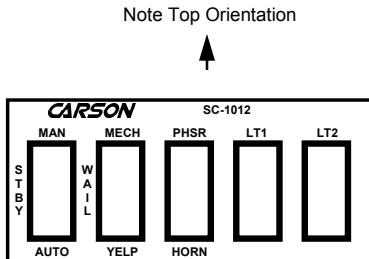
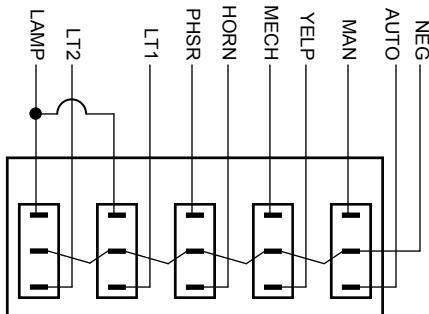
10-P Terminal Block Plug
(CP4688-10)



Plug installed this orientation



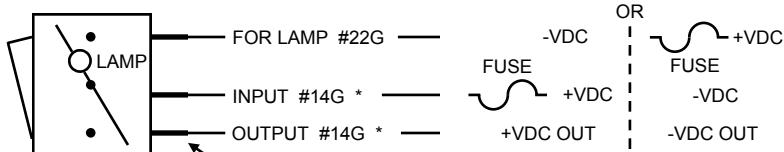
Remote Panel wired to terminal block plug
Suggest wires be #22G (not supplied)



LT1 and LT2 Lighted Rocker Switches may control devices directly bypassing the unit.

LT1 and LT2
Lighted Rocker Switch
Circuit

LT1 and LT2 Lighted Rocker Switches are rated 15 Amps each.
Proper fusing should be used to protect the switch and circuit.

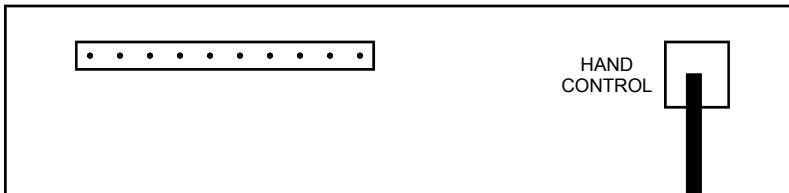


Observe Terminal Spacing for Orientation

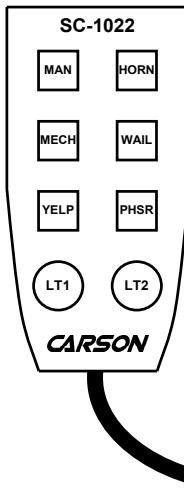
* - See Load Wire Size chart on Page 8

ELECTRICAL CONNECTIONS CONTINUED (SC-1022 only)

Front of Unit



Plug hand control into unit



Note: Cable may be extended with ED1753 Hand Control Cable Extension Kit.
See PARTS and ACCESSORIES Section.

Do not extend with other cables which may cause unreliable operation or damage.

OPERATION

SC-1002 and SC-1012 Models

WARNING Sound Hazard - Sound level from siren speaker (>120dBA @ 10 feet) may cause hearing damage.
⚠️ Do not operate siren without adequate hearing protection for you and anyone in immediate vicinity.
 (Ref. OSHA 1910.95 for occupational noise exposure guidelines)

POWER ON/OFF

The unit is turned on with the siren or light controls or the ignition switch on the vehicle.
 See INSTALLATION section.

On the SC-1002 the backlight will turn on.

On the SC-1012 remote amplifier the **POWER** light will turn on.

SIREN CONTROLS

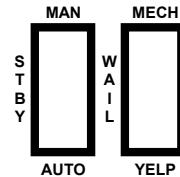
MAN - STBY - AUTO SELECTOR SWITCH

A 3-position rocker selector switch controls the primary operating mode of the siren.

Manual - Provides manual control of Mechanical and Wail tone rise and fall or momentary Yelp depending on the position of **Mech - Wail - Yelp** switch.

Auto - Keeps siren tone running (automatic rise and fall). Tone depends on the position of **Mech - Wail - Yelp** switch.

Standby - A silent mode that may be overridden anytime.



MECH - WAIL - YELP SELECTOR SWITCH

A 3-position rocker selector switch controls the primary siren tone.

Mech - A simulated mechanical siren tone. Tone may be changed or disabled. See OPTION SWITCHES section.

Wail - A slower changing tone used on highways.

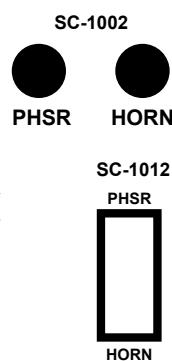
Yelp - A rapidly changing tone used in congested areas.

PHASER BUTTON (SC-1002) or ROCKER (SC-1012)

A very rapid changing tone used at intersections and very highly congested areas. With selector switch in **Auto**, this tone override is toggled on and off by repeatedly pressing switch. With selector switch in **Standby**, this tone override is momentary as long as the switch is pressed. May be optionally replaced with **Two-Tone** or disabled. Two-Tone is two alternating frequencies like a European HI-LO. See OPTION SWITCHES section.

HORN BUTTON (SC-1002) or ROCKER (SC-1012)

Produces a simulated Air-Horn tone while pressed. Overrides all siren modes. Horn tone may be disabled. See OPTION SWITCHES section.



AUXILIARY INPUT FUNCTIONS

The switch or horn ring attached is intended to be momentary.

If the selector switch is in **Standby** and **LT1** and **LT2** light controls are off, the ignition switch on the vehicle must be on for the Auxiliary Input to function. See INSTALLATION section.

When the selector switch is in **Auto**, activating auxiliary will produce the Horn tone.

With selector switch in **Standby**, activating auxiliary will normally produce Horn tone. Different tones are available. See OPTION SWITCHES section.

Horn Ring Cycler 2 (HRC2) - this feature may also be added by turning on the HRC2 option. HRC2 is only available while the unit is in **Standby**. Tapping the attached horn ring or other switch, will bring the unit out of standby into Mechanical tone. Repeatedly tapping the horn ring will cycle through Mechanical, Wail, Yelp, and Phaser tones. Tapping the horn ring twice quickly will stop the siren tones and return the unit to standby. Pressing and holding the horn ring will produce Horn tone until released. Then the siren will return to its previous siren tone or standby.

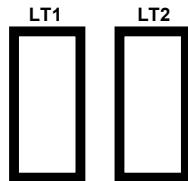
Selector Position	Mech - Wail - Yelp Position	Phaser Switch	Horn Switch	Auxiliary Input (Horn Ring)
Standby	Silent	Mom. Phsr	Horn	Horn, M. Mech., M. Wail, or HRC2
Manual	M. Mech., M. Wail, or Yelp	Phsr Toggle	Horn	
Auto	Mechanical, Wail, or Yelp	Phsr Toggle	Horn	

OPERATION (SC-1002 and SC-1012 Models continued)

LIGHT CONTROLS

LT1 and LT2 LIGHTED ROCKER SWITCHES

When turned on the rocker switch will light up and activate the corresponding light output.



OPERATION (continued)

SC-1022 Model

WARNING Sound Hazard - Sound level from siren speaker (>120dBA @ 10 feet) may cause hearing damage.
 Do not operate siren without adequate hearing protection for you and anyone in immediate vicinity.
 (Ref. OSHA 1910.95 for occupational noise exposure guidelines)

POWER ON/OFF

The unit is normally turned on with ignition switch on the vehicle. See INSTALLATION section. The **POWER** light on remote amplifier will turn on. The hand control will also be backlit.

SIREN CONTROLS

MECH, WAIL, YELP, AND PHSR PUSHBUTTON SWITCHES

Four pushbutton switches control the primary operating mode of the siren.

The primary operating modes are:

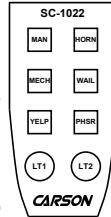
Standby - A silent mode that may be overridden at any time.

Mech - A simulated mechanical siren tone. Tone may be changed or disabled. See OPTION SWITCHES section.

Wail - A slower changing tone used on highways.

Yelp - A rapidly changing tone used in congested areas.

Phaser - A very rapid changing tone used at intersections and very highly congested areas. May be optionally replaced with **Two-Tone** or disabled. Two-Tone is two alternating frequencies like a European HI-LO. See OPTION SWITCHES section.



Momentarily press button to activate (lit red). Momentarily press button again to de-activate. Also while a particular mode is activated, switch to a different mode by pressing one of the other three buttons. The unit is in Standby when NONE of the four buttons are activated (NOT lit red). For example starting with all four buttons off, press the **Wail** button to turn on Wail. Now press the **Yelp** button to change to Yelp. Press the **Yelp** button again to turn off sound (return to Standby). When Mechanical or Wail is turned off the tone will die out. Turn on Short Manual option to stop tone immediately. See OPTION SWITCHES section.

MAN PUSHBUTTON SWITCH

Provides manual control of siren tone depending on the primary operating mode selected.

While in Standby, the **Manual** button controls the Mechanical tone. Rising to peak while pressed then falling until die out when released. May be optionally replaced with manual Wail tone.

See OPTION SWITCHES section.

While in Mech, Wail, Yelp, or Phaser mode, pressing the **Manual** button causes tone to rise and peak then resume when released.

HORN PUSHBUTTON SWITCH

Produces a simulated Air-Horn tone while pressed. Overrides all siren modes. Horn tone may be disabled. See OPTION SWITCHES section.

AUXILIARY INPUT FUNCTIONS

The switch or horn ring attached is intended to be momentary. While in Mech, Wail, Yelp, or Phaser mode, activating auxiliary will produce Horn tone. While in Standby, activating auxiliary will normally produce Horn tone. Different tones are available. See OPTION SWITCHES section.

Horn Ring Cybler 2 (HRC2) - this feature may also be added. See description on Page 11.

Primary Mode and Tone	MAN Button	HORN Button	Auxiliary Input (Horn Ring)
Standby (Silent)	M. Mech or M. Wail	Horn	Horn, M. Mech., M. Wail, or HRC2
Mechanical	Man. Mech. Rise	Horn	Horn
Wail, Yelp, or Phaser	Man. Wail Rise	Horn	Horn

LIGHT CONTROLS

LT1 and LT2 PUSHBUTTON SWITCHES

Momentarily push button to activate (will light red) corresponding light output.

Momentarily push button again to de-activate corresponding light output.

SERVICE

This unit is designed to provide years of reliable service under even the worst conditions. Many times there may appear to be a problem with the unit when the true problem is in the speaker, controlled devices, or improper installation. The following chart shows typical symptoms and possible causes.

A blown siren fuse doesn't necessarily mean that the unit is bad. If a speaker or speaker lead is shorted the fuse will blow before the unit is damaged. Disconnect the SPKR leads and replace the fuse. If the **OUTPUT** light comes on with Wail mode selected (and Enable Input powered for SC-1022) the amplifier is OK. Check the speaker or leads for possible shorting.

PROBLEMS

Symptom	Possible Cause	Check
No power or siren output	No power to enable input (org wire) Bad speaker Connector(s) loose Rear panel fuse blown Loose connection at power source	Does backlighting or POWER light come on? Is the OUTPUT light on face coming on in Wail? Do you hear a "pop" when turned on? Is an external fuse or circuit breaker used? Are the negative leads connected to a good ground?
No siren tones	Bad Speaker High Voltage Protection	Is the OUTPUT light on face coming on in Wail? Input voltage must be less than highest rated voltage.
Distorted siren sound	Speaker assembly loose Intermittent Aux Input connection Low vehicle voltage	Is the speaker bell or tip loose? Is the Aux Input used and wired properly? Input voltage must be greater than lowest rated voltage.
Intermittent siren tone	High Voltage Protection Connector loose Bad power connection Circuit breaker in supply connection	Is the vehicle voltage regulator working properly? Is the connector tight on the back of the unit? Is there a loose connection on a power lead? Is a circuit breaker used with at least a 50A rating?
Horn function stuck on or Manual stuck on	Horn or Manual switch stuck Aux Input improperly connected Aux Input Polarity Option set wrong	Does the horn or manual switch return when released? Is the Aux Input used and wired properly? Is the AUX_P option properly configured?
Wrong siren tone	Two-Tone option installed Tones disabled.	Is the T-T option selected? Check option switch settings.
Some siren tones not working	Tone disabled	Check option switch settings.
Light switches not working	Loose output connections Rear panel fuse blown	Do the Light Control switch indicators light? Is the corresponding fuse blown?

See www.carsonsirens.com for additional information
or contact our Service Department at:
E-mail service@carsonsirens.com or Phone (888) 577-6877

PARTS and ACCESSORIES

The following parts and accessories are available from Carson Manufacturing Company, Inc.:

Part	Description
CP4990-150	Fuse, 15 Amp Mini Automotive (Siren)
CP4990-250	Fuse, 25 Amp Mini Automotive (Lite)
CP4748-2	Switch, Red Rocker ON - OFF - ON (Mech - Wail - Yelp) (SC-1002 / 1012)
CP4751-2	Switch, Momentary Red Rocker Switch, (ON) - OFF - (ON) (Phsr - Horn) (SC-1012)
CP4995-2	Switch, Red Rocker (ON) - OFF - ON (Man - Standby - Auto) (SC-1002 / 1012)
CP4993	Switch, Lighted Rocker for Light Control (SC-1002 / 1012)
CP4998	Transistor, output (replace in pairs, 2 required)
Accessory	Description
CP3571 *	Bracket, 'U' dash mount (Amplifier)
ED1608 *	Mounting Hardware Kit (2 bolts, 2 nuts, 4 lockwashers)
CP4956-06 *	Connector, 6-pin Terminal Block Plug
CP4688-10 *	Connector, 10-pin Terminal Block Plug (SC-1012)
CP4062-K2523 *	Terminal, 3/16" insulated female Q.C. (SC-1012)
SC-1000-10 14 *	SC-1012 / 1022 Remote Amplifier
SC-1012-10CH *	SC-1012 Remote Panel Assembly (includes rocker switches)
SC-1022-10CH *	SC-1022 Hand Control Assembly
CP5003	SC-1022 Hand Control Holster
ED1865	SC-1022 Hanger and Holder Kit
ED1753	Cable, Hand Control Extension 15FT Kit (includes CP4652 shielded cable & CP4141 modular coupler) (SC-1022)
VELCRO *	Velcro Strip Fastener (SC-1022)
CP5028 *	Instruction Manual

See www.carsonsirens.com for additional information

or contact our Service Department at:

E-mail service@carsonsirens.com or Phone (888) 577-6877

RETURN

If you have any questions concerning this or any other Carson product, please contact our **Technical Service Department** at (888) 577-6877. Many issues can be handled over the phone. We can also be reached via e-mail at service@carsonsirens.com

If a product must be returned for any reason, please contact our Technical Service Department to obtain a Returned Merchandise Authorization number (RMA#) before you ship the product to Carson. Please write the RMA# clearly on the package near the mailing label. Be sure to provide a return address, contact and phone number, along with a brief description of the problem.

LIMITED WARRANTY

Carson Manufacturing Company, Inc. warrants this new product to be free from defects in material and workmanship, under normal use and service, for a period of five (5) years from the date of delivery to the first user-purchaser.

During this warranty period the obligation of Carson Manufacturing is limited to repairing or replacing, as Carson Manufacturing may elect, any part or parts of such product which after examination by Carson Manufacturing is determined to be defective in material and/or workmanship.

This warranty does not cover labor charges for removal or re-installation of the product. Fuses and lamps are not covered under this warranty.

This warranty does not extend to any unit that has been subjected to abuse, misuse, improper installation or which has not been adequately maintained, nor to units which have problems related to service or modification at any facility other than Carson Mfg.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL CARSON MANUFACTURING COMPANY, INC. BE LIABLE FOR ANY LOSS OF PROFITS OR ANY INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY SUCH DEFECT IN MATERIALS OR WORKMANSHIP.